Multifunction time relay

Applications

-Multifunction time relay can be used for electrical appliances, control of lights, heating, motors, pumps and fans (10 functions, 10 time ranges, multi-voltage).

Feature

-10 functions: - 5 time functions controlled by supply voltage
- 4 time functions controlled by control input
- 1 function of latching relay

-Comfortable and well-arranged function and time-range setting by rotary switches.
-Time scale 0.1 s - 10 days divided into 10 ranges.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

GRT8 — M □/□

- Rated control supply voltage
  A230:AC230V;
  W240:AC/DC12V-240V;
- Number of contacts
  1:1×SPDT;
  2:2×SPDT;
- Multifunction time relay
- GRT8 Series

Technical parameters

		GRT8-M1	GRT8-M2
Function		A,B,C,D,E,F,G,H,I,J	
Supply terminals		A1-A2	
Voltage range	W240	AC/DC 12-240V(50-60Hz)	
Burden	W240	AC 0.09-3VA/DC 0.05-1.7W	
Voltage range	A230	AC 230V(50-60Hz)	
Power input	A230	AC max.6VA/1.3W	AC max.6VA/1.9W
Supply voltage tolerance		-15%;+10%	
Supply indication		green LED	
Time ranges		0.1s-10days,ON,OFF	
Time setting		potentionmeter	
Time deviation		10%-mechanical setting	
Repeat accuracy		0.2%-set value stability	
Temperature coefficient		0.05%/℃,at=20℃(0.05%℉, at=68℉)	
Output		1×SPDT	2×SPDT
Current rating		1×16A(AC1)	2×16A(AC1)
Switching voltage		250VAC/24VDC	
Min.breaking capacity DC		500mW	
Output indication		red LED	
Mechanical life		1×10^7	
Electrical life(AC1)		1×10^5	
Reset time		max.200ms	
Operating temperature		-20℃ to +55℃ (-4℉ to 131℉)	
Storage temperature		-35℃ to +75℃ (-22℉ to 158℉)	
Mounting/DIN rail		Din rail EN/IEC 60715	
Protection degree		IP40 for front panel/IP20 terminals	
Operating position		any	
Overvoltage cathegory		III.	
Pollution degree		2	
Max.cable size(mm^2)		solid wire max.1×2. 5or 2×1. 5/with sleeve max.1×2. 5(AWG 12)	
Dimensions		90×18×64mm	
Weight		1×SPDT: W240-62g,A230-60g	
		2×SPDT: W240-82g,A230-81g	
Standards		EN 61812-1,IEC60947-5-1	

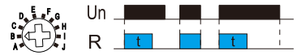
Functions Diagram

A:On Delay (Power On)

When the input voltage U is applied, timing delay t begins. Relay contacts R change state after time delay is complete. Contacts R return to their shelf state when input voltage U is removed. Trigger switch is not used in this function.

B:Interval (Power On)

When input voltage U is applied, relay contacts R change state immediately and timing cycle begins. When time delay is complete, contacts return to shelf state. When input voltage U is removed, contacts will also return to their shelfstate. Trigger switch is not used in this function.

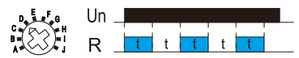


C:Repeat Cycle (Starting Off)

When input voltage U is applied, time delay t begins. When time delay t is complete, relay contacts R change state for time delay t. This cycle will repeat until input voltage U is removed. Trigger switch is not used in this function.

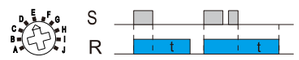
D:Repeat Cycle (Starting On)

When input voltage U is applied, relay contacts R change state immediately and time delay t begins. When time delay t is complete, contacts return to their shelf state for time delay t. This cycle will repeat until input voltage U is removed. Trigger switch is not used in this function.



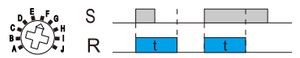
E:Off Delay (S Break)

Input voltage U must be applied continuously. When trigger switch S is closed, relay contacts R change state. When trigger switch S is opened, delay t begins. When delay t is complete, contacts R return to their shelf state. If trigger switch S is closed before time delay t is complete, then time is reset. When trigger switch S is opened, the delay begins again, and relay contacts R remain in their energized state. If input voltage U is removed, relay contacts R return to their shelf state.



F:Single Shot

Upon application of input voltage U, the relay is ready to accept trigger signal S. Upon application of the trigger signal S, the relay contacts R transfer and the preset time t begins. During time-out, the trigger signal S is ignored. The relay resets by applying the trigger switch S when the relay is not energized.



G:Single Shot Trailing Edge (Non-Retriggerable)

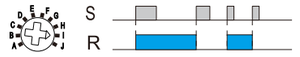
Upon application of input voltage U, the relay is ready to accept trigger signal S. Upon application of the trigger signal S, the relay contacts R transfer and the preset time t begins. At the end of the preset time t, the relay contacts R return to their normal condition unless the trigger switch S is opened and closed prior to time out t (before preset time elapses). Continuous cycling of the trigger switch S at a rate faster than the preset time will cause the relay contacts R to remain closed. If input voltage U is removed, relay contacts R return to their shelf state

H:On/Off Delay

Input voltage U must be applied continuously. When trigger switch S is closed, time delay t begins. When time delay t is complete, relay contacts R change state and remain transferred until trigger switch S is opened. If input voltage U is removed, relay contacts R return to their shelf state.

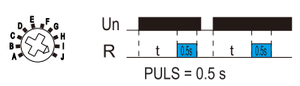
I:Latching relay

Input voltage U must be applied continuously. Output changes state with every trigger switch S closure. If input voltage U is removed, relay contacts R return to their shelf state.



J:Pulse generator

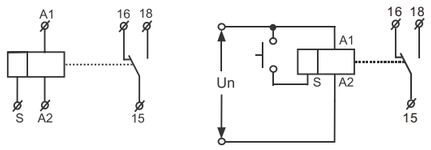
Upon application of input voltage U, a single output pulse of 0.5 seconds is delivered to relay after time delay t. Power must be removed and re-applied to repeat pulse. Trigger switch is not used in this function.



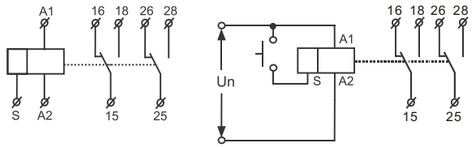
Time Range

Wiring Diagram

GRT8-M1



GRT8-M2



Dimensions(mm)